

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/23782

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B25B 3/00, 5/02, 27/06, 12, 18, 20
US CL : 442/59, 67, 68, 70, 74, 75, 131, 133, 136

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 442/59, 67, 68, 70, 74, 75, 131, 133, 136

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,660,667 B2 (Zuckerman et al.) 9 Dec. 2003 (09.12.2003), Abstract, column 4, lines 34-55, column 5, lines 32-37, column 13, lines 50-55	1,3-5,8-10,12
---		-----
Y		2,6,7,11
X	US 5,532,039 A (Payne et al.) 2 Jul. 1996 (02.07.1996), Abstract, column 5, lines 33-36, column 6, lines 29-32	1,3-4,7-9,10,12
---		-----
Y		2,6,11
X	US 2003/0054141 A1 (Worley et al.) 20 Mar 2003 (20.03.2003), Abstract, paragraphs 5, 16, 32, 35, 36, 39, 45	1-10,12
---		-----
Y		11
Y	US 5,053,446 A (Salyer) 1 Oct. 1991 (01.10.1991), Abstract, column 10, lines 19-32, 55-59	2,6,11
Y	US 4,797,160 A (Salyer) 10 Jan. 1989 (10.01.1989), Abstract, column 2, lines 18-20, 30-35, 53-58, column 3, lines 30-37	2,6,7,11
A	US 5,885,475 A (Salyer) 23 Mar. 1999 (23.03.1999)	

Further documents are listed in the continuation of Box C.

See patent family annex.

•	Special categories of cited documents:	
"A"	document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"B"	earlier application or patent published on or after the International filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O"	document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P"	document published prior to the International filing date but later than the priority date claimed	

Date of the actual completion of the international search

04 November 2004 (04.11.2004)

Date of mailing of the international search report

24 NOV 2004

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

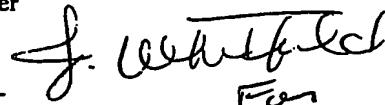
Facsimile No. (703) 305-3230

Authorized officer

Terrel Morris

Telephone No. -

(571) 272-1700



INTERNATIONAL SEARCH REPORT

International application No.
PCT/US04/23782

C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2003/0035951 A1 (Magill et al.) 20 Feb. 2003 (20.02.2003)	

INTERNATIONAL SEARCH REPORT

International application No. PCT/US04/23782

Continuation of B. FIELDS SEARCHED Item 3:
EAST
membrane, fabric, alkyl hydrocarbon, woven, phase change